

## US Army Corps of Engineers®

# PUBLIC NOTICE

APPLICATION FOR PERMIT

*LOS ANGELES DISTRICT*

**Public Notice/Application No.:** 200000392

**Comment Period:** May 7, 2004 through July 7, 2004

**Project Manager:** Susan A. DeSaddi [susan.a.desaddi@usace.army.mil](mailto:susan.a.desaddi@usace.army.mil)

---

### **Applicant**

Macie Cleary-Milan  
Deputy Director, Environmental Planning  
Foothill/Eastern Transportation Corridor  
Agency (TCA)  
125 Pacifica  
Irvine, California 92618

### **Contact**

Macie Cleary-Milan  
Deputy Director, Environmental Planning  
TCA  
(949) 754-3444

**Location:** The proposed activity is located in southern Orange and northern San Diego counties, California. The biological study area encompasses approximately 22,500 acres within the San Juan Creek and San Mateo Creek watersheds, and is roughly bounded by the Interstate 5 (I-5) and Interstate 405 (I-405) merge; I-5 to the west; Camp Pendleton to the south; into undeveloped areas of the Rancho Mission Viejo (RMV) property to the east; and up to the existing southern terminus of State Route 241 (SR-241) (Figure 1).

**Activity:** To construct roadway transportation improvements. These improvements may consist of a toll road, 9 miles (mi) to 16 mi in length, connecting existing SR-241 from Oso Parkway, near Mission Viejo, to I-5 or an intermediate point at an intersecting arterial. Six toll road alternative alignments are under consideration and are depicted in Figure 2. Two additional transportation improvement alternatives under consideration are the Arterial Improvements Only (AIO) and an I-5 widening, which are also shown in Figure 2. These non-toll road alternatives are not under the jurisdiction of the applicant, but nonetheless are being studied at an equally rigorous level in the draft EIS/SEIR for purposes of the National Environmental Policy Act (NEPA). While a preferred alternative has not been identified at this time, the Federal Highway Administration (FHWA) and the TCA expect to identify a preferred alternative prior to the Final EIS/SEIR. The selection of a preferred alternative will be consistent with the procedures set forth in the NEPA-Section 404 Clean Water Act Memorandum of Understanding (MOU; refer to page 8 for further details) and in accordance with the Council on Environmental Quality (CEQ) regulations 40 CFR 1502.14(e). For more information see

pages 3 through 16 of this notice. Additional information concerning the impacts of the proposed project is contained in the draft EIS/SEIR including its appendices and technical reports. The draft EIS/SEIR is available on the Internet at [www.thetollroads.com](http://www.thetollroads.com). The draft EIS/SEIR and technical reports are also available for review or purchase at the TCA.

---

Interested parties are hereby notified that an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). Interested parties are invited to provide their views on the proposed work, which will become a part of the record and will be considered in the decision. This permit will be issued or denied under Section 404 of the Clean Water Act of 1972 (33 U.S.C. 1344).

Comments should be mailed to: U.S. Army Corps of Engineers, Los Angeles District  
Regulatory Branch  
ATTN: Susan A. DeSaddi  
P.O. Box 532711  
Los Angeles, CA 90053-2325

Alternatively, comments can be sent electronically to: [susan.a.desaddi@usace.army.mil](mailto:susan.a.desaddi@usace.army.mil)

### **Evaluation Factors**

The decision whether to issue a permit will be based on an evaluation of the probable environmental effects including cumulative environmental effects of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal, will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material into Waters of the United States (WofUS), the evaluation of the activity will include application of the EPA Guidelines (40 CFR 230) as required by Section 404 (b)(1) of the Clean Water Act (CWA).

The Corps of Engineers (Corps) is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed project. Comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. The Federal Highway Administration (FHWA) and the applicant, Foothill/Eastern Transportation Corridor Agency (TCA), are preparing a joint NEPA/CEQA document, which evaluates the environmental effects of the proposed transportation project. Comments received on this Public Notice (PN) will be used in the identification of a preferred alternative/preliminary least environmentally damaging practicable alternative (LEDPA) and in the finalization of the Environmental Impact Statement (EIS)/Subsequent Environmental Impact Report (SEIR) pursuant to

the National Environmental Policy Act (NEPA). Comments also will be used to determine the overall public interest of the proposed activity. Commensurate with the circulation of the final EIS/SEIR for this proposed project, a subsequent Public Notice will be issued by the Corps to solicit comments on the applicant's selection of a preferred alternative. Any comments received on the subsequent PN will be considered by the Corps to determine the need for a public hearing and whether to issue, modify, condition or deny a permit for the discharge of dredged or fill material into WofUS resulting from the proposed activity.

### **Preliminary Review of Selected Factors**

**EIS Determination-** A joint Draft EIS/SEIR has been prepared by the Federal Highway Administration (FHWA) and the applicant, Foothill/Eastern Transportation Corridor Agency (TCA), entitled *South Orange County Transportation Infrastructure Improvement Project* (SOCTIIP). The original Notice of Intent (NOI) to prepare an EIS was published in the Federal Register on December 16, 1993 followed by a Revised NOI on February 20, 2001. Two No Action alternatives plus eight build alternatives are being considered, including six toll road corridor alternatives, an alternative with arterial improvements only, and an I-5 widening alternative. FHWA published a Supplemental NOI in the Federal Register on March 14, 2001 to inform the public and federal agencies of the dates, times, and locations of the three planned scoping meetings. The public draft EIS/SEIR is being circulated for a 60-day public review period commensurate with this Public Notice.

**Water Quality-** The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board (RWQCB). Section 401 requires that any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps prior to permit issuance. For any proposed activity on Tribal land that is subject to Section 404 jurisdiction, the applicant will be required to obtain water quality certification from the U.S. Environmental Protection Agency. Upon selection of a preferred alternative, the applicant plans to submit an application to the RWQCB seeking 401 certification.

**Coastal Zone Management-** For those projects in or affecting the coastal zone, the federal Coastal Zone Management Act (CZMA) requires that prior to issuing the Corps authorization for the project, the applicant must obtain concurrence from the California Coastal Commission (CCC) that the project is consistent with the California Coastal Zone Management Plan (CZMP). Some of the SOCTIIP build alternatives are located within the coastal zone in the southernmost part of the project area. If the selected alternative is within the coastal zone, the applicant will submit a certification that the activity complies with California's approved coastal zone management program and will be conducted in a manner consistent with such program. The certification will be submitted to the CCC for review and concurrence.

**Cultural and Paleontological Resources-** The most current version of the National Register of Historic Places (NRHP) and other applicable sources have been reviewed to determine if any cultural resource sites exist in the project area. Several sites with potential resource significance have been identified on or adjacent to the various alternatives. Accordingly, the FHWA, as the lead federal agency, will conduct all necessary coordination with the State Historic Preservation Officer in accordance with 36 CFR Section 800. Depending on the selected alternative, implementation of the SOCTIIP build alternatives may affect fossil bearing formations, resulting in potential damage or loss of resources. Mitigation measures have been established and would be implemented to mitigate

impacts. However, unavoidable adverse impacts related to paleontological resources would likely remain after mitigation.

**Endangered Species-** Preliminary determinations indicate that the proposed activity may affect seven federally listed endangered and threatened plant and animal species and potentially modify federally designated or proposed critical habitat for five species. Listed species that may be affected are: thread-leaved brodiaea (*Brodiaea filifolia*), southern steelhead trout (*Oncorhynchus mykiss*), tidewater goby (*Eucyclogobius newberryi*), arroyo toad (*Bufo californicus*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and Pacific pocket mouse (*Perognathus longimembris pacificus*). Additionally, designated critical habitat or proposed critical habitat for coastal California gnatcatcher, tidewater goby, arroyo toad, San Diego fairy shrimp, and Riverside fairy shrimp may be affected or adversely modified. The FHWA will initiate consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Federal Endangered Species Act (FESA) for the above listed species and designated critical habitat when a preferred alternative is selected. Please refer to Section 4.12 (Affected Environment, Impacts and Mitigation to Threatened and Endangered Species) in the draft EIS/SEIR for detailed descriptions of the impacts on federally listed species and designated critical habitat. Table 1 below summarizes the expected direct impacts on the aforementioned species.

**Table 1**  
**DIRECT IMPACTS TO FEDERALLY LISTED THREATENED & ENDANGERED SPECIES**

SPECIES (METRIC)	ALTERNATIVES							
	FEC-M	FEC-W	CC	CC-ALPV	A7C-FEC-M	A7C-ALPV	AIO	I-5
Thread-leaved brodiaea (# of plants)	54	23	0	0	23	76	0	0
	94	56	0	0	56	76	0	0
Tidewater goby (# of individuals)	See note 1	See note 1	0 0	0 0	See note 1	0 0	0 0	0 0
So. Steelhead trout (# of individuals)	See note 2	See note 2	0 0	0 0	See note 2	0 0	0 0	0 0
Arroyo toad (# of individuals)	1 2	1 2	0 0	0 0	1 2	0 0	0 0	 1
Least Bell's vireo (# of individuals)	0 0	0 0	1 1	1 1	0 0	1 1	 2	 0
California gnatcatcher (# of use areas)	13 13	12 12	10 11	7 8	15 16	11 13	 6	 1
Pacific pocket mouse (# of individuals)	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0

**Note 1.** The impacts to a specific number of tidewater goby cannot be quantified because the population numbers change markedly between years. Because the goby has been found in lagoons in the San Diego county portion of the study area, this alternative may result in impacts to individual tidewater gobies.

**Note 2.** The impacts to a specific number of steelhead have not been quantified because of the uncertainty of whether the steelhead will be present. Although conditions in the study area are likely to be unsuitable for the steelhead in many years, this alternative may result in impacts to individual southern steelhead trout.

**Essential Fish Habitat-** This project is not expected to impact any areas designated as Essential Fish Habitat by the National Marine Fisheries Service (NOAA Fisheries).

**Public Meeting-** As the lead federal agency under NEPA, the FHWA, in consultation with TCA, plans to hold a public meeting on the proposed project on June 19, 2004, from 10:00 a.m. until 6:00 p.m. The Notice of Availability (NOA) discusses the time, location and format of the meeting.

### **Proposed Activity for Which a Permit is Required**

The proposed build alternatives would result in varying amounts of discharge of fill material into WofUS, including wetlands. Table 2 estimates the direct and permanent losses of riparian ecosystems, expressed in acres, for each of the build alternatives. In general, the toll road corridor alternatives include multiple bridge structures. These bridges are proposed to be constructed at major water crossings and natural resources where the transportation facility/corridor alignment crosses the following drainages: Cañada Gobernadora, Cañada Chiquita, San Juan Creek, Cristianitos Creek, San Mateo Creek, and San Onofre Creek. The bridge structures would be designed to minimize impacts to aquatic resources by spanning, where possible, and minimizing the use of fill material for abutments, pilings, and adjacent bank stabilization.

In addition to the discharge of fill material associated with the bridges, cut-and-fill construction activities are expected to permanently impact a number of unnamed ephemeral and intermittent drainages, including potential adjacent wetlands. Depending on the alternative, the total volume of fill material ranges from approximately 3 million cubic yards (cy) to 44 million cy and 56 million cy for the “Initial” right-of-way and “Ultimate” right-of-way, respectively. In terms of the placement of the total volume of fill material associated with each alternative, a portion would be discharged into areas that likely are not under the Corps’ geographic jurisdiction (e.g., uplands), while the balance of the estimated fill material would be discharged into WofUS that would be subject to the Corps’ jurisdiction. While the applicant has not calculated the quantity of fill material that would be discharged into WofUS for each of the proposed build alternatives, the footprints of direct impacts (i.e., area) on riparian ecosystems as a result of the discharges of dredged or fill material have been estimated and are represented by the acreages included in Table 2. The estimated direct impacts to other WofUS are measured in stream miles impacted by Strahler stream order<sup>1</sup> and are shown in Tables 3 and 4.

Indirect effects on the hydrology integrity of riparian ecosystems resulting from the discharge of dredged or fill material into WofUS have been assessed in the Runoff Management Plan (RMP), Hydrology, and Location Hydraulics technical studies. Similarly, indirect or secondary effects on the water quality integrity of riparian ecosystems that would result from the discharge of dredged or fill material into WofUS have been quantitatively evaluated in the Runoff Management Plan (RMP). The RMP stipulates that the designated water quality volume of runoff generated from the project facility would be treated at appropriate water quality remediation facilities prior to discharge into downstream receiving waters. Treatment would be provided at or above Maximum Extent Practicable (MEP) levels and would not exceed the applicable Regional Water Quality Board Water Quality Control Plans for the San Diego and Santa Ana Regions. In addition, the project incorporates a number of Best Management Practices (BMPs) to control runoff velocities and treat water runoff. There could be potential indirect or secondary effects on the habitat integrity of riparian ecosystems resulting from the discharge of dredged or fill material into WofUS. During the remainder of the SOCTIIP

---

<sup>1</sup> Strahler, A.N. 1957. Quantitative analysis of watershed geomorphology. Transactions of the American Geophysical Union 38: 913-920.

environmental and permit review processes, the applicant will determine whether there are potential indirect or secondary effects on the habitat integrity of riparian ecosystems resulting from the discharge of dredged or fill material into WofUS. Should the applicant determine there are adverse indirect effects on the habitat integrity of riparian ecosystems, these impacts would be quantified and disclosed in the final EIS/SEIR and in the Corps' subsequent PN.

While impacts to WofUS, including wetlands, are provided for both the "Initial" and "Ultimate" alignments, or phases of construction, for each of the eight build alternatives, the applicant will apply for a 404 permit only for the Initial alignment (refer to page 11 for an explanation of the "Initial" and "Ultimate" alignments). The Corps will consider the indirect and cumulative impacts of the Ultimate alignment, however, any DA permit issued pursuant to this PN would only be for the Initial alignment. The general sequence of construction, including the associated footprint of disturbance, for the Initial and Ultimate alignments is illustrated on Figures 3 and 4.

The calculation of impacts to WofUS are based on the 2003 planning level delineation and functional assessment performed by the U.S. Army Engineer Research and Development Center (ERDC) and preliminary engineering design information. Prior to the final EIS/SEIR, the applicant will conduct a formal jurisdictional determination for purposes of the Corps Section 404 permit review process and to refine the estimates of discharge of fill material into jurisdictional wetlands and non-wetland WofUS. The jurisdictional limit for non-tidal WofUS is determined by the jurisdictional wetland boundary and/or the ordinary high water mark. The jurisdictional limit of wetlands is determined in accordance the Corps' 1987 Wetlands Delineation Manual (Environmental Laboratory, 1987). Otherwise, presence of the indicators stated in the definition of ordinary high water mark (33 CFR 328.3(e)) is used to establish the jurisdictional limit of a WofUS.

**Table 2**  
**RIPARIAN ECOSYSTEMS DIRECTLY IMPACTED**  
**BY THE CORRIDOR FOOTPRINT**

Alternative	Acres of Riparian Ecosystem Directly Impacted <sup>2</sup>	
	Initial Alignment	Ultimate Alignment
FEC-M	38.7	40.3
FEC-W	49.0	53.4
CC	53.7	60.2
CC-ALPV	49.9	57.4
A7C-ALPV	23.1	32.0
A7C-FEC-M	42.9	45.6
AIO	9.2	9.2
I-5	13.7	13.7

Source: Smith (2003).

<sup>2</sup> Waters of the U.S. (WofUS) are the areas subject to regulation under Section 404 of the Federal Clean Water Act. Wetlands are a special aquatic site and a subset of WofUS, and throughout the discussion herein, the term WofUS should be interpreted as including wetlands. It is important to note the "functional" riparian ecosystem, as defined for the Functional Assessment (Smith 2003) has no special recognition, meaning, or status in the context of the 404 Program. While functional riparian ecosystems normally include all WofUS regulated under the 404 Program and the resources subject to California Department of Fish and Game Code Section 1600, the riparian ecosystem at times includes areas that fall outside the jurisdiction of one or both of these programs.

**Table 3**  
**WofUS STREAM CHANNELS**  
**DIRECTLY IMPACTED BY THE CORRIDOR FOOTPRINT**  
**(INITIAL ALIGNMENT)**

Alternative	Miles of WofUS Stream Channels by Strahler Order					Total
	1 <sup>st</sup> Order	2 <sup>nd</sup> Order	3 <sup>rd</sup> Order	4 <sup>th</sup> Order	5 <sup>th</sup> Order	
FEC-M	4.8	3.1	0.7	0.6	0.2	9.3
FEC-W	4.3	2.2	0.8	0.2	0.2	7.6
CC	5.1	2.3	0.9	2.0	0.0	10.3
CC-ALPV	4.1	2.3	0.8	1.5	0.0	8.4
A7C-ALPV	1.9	1.6	0.5	0.1	0.1	4.2
A7C-FEC-M	5.2	2.5	1.0	0.1	0.2	8.9
AIO	1.6	1.3	0.8	0.0	0.1	3.7
I-5	1.3	0.7	0.8	0.1	0.2	3.0

Source: Smith (2003).

**Table 4**  
**WofUS STREAM CHANNELS**  
**DIRECTLY IMPACTED BY THE CORRIDOR FOOTPRINT**  
**(ULTIMATE ALIGNMENT)**

Alternative	Miles of WofUS Stream Channels by Strahler Order					Total
	1 <sup>st</sup> Order	2 <sup>nd</sup> Order	3 <sup>rd</sup> Order	4 <sup>th</sup> Order	5 <sup>th</sup> Order	
FEC-M	5.0	3.2	0.7	0.7	0.3	9.9
FEC-W	4.4	2.3	0.8	0.2	0.2	7.9
CC	5.8	2.4	1.0	2.1	0.0	11.3
CC-ALPV	4.5	2.2	0.8	1.8	0.0	9.3
A7C-ALPV	2.4	1.8	0.5	0.3	0.1	5.1
A7C-FEC-M	5.3	2.6	1.1	0.1	0.2	9.3
AIO	1.6	1.3	0.8	0.0	0.1	3.7
I-5	1.3	0.7	0.8	0.1	0.2	3.0

Source: Smith (2003).

In addition to the planning level delineation, a functional assessment was conducted by the ERDC, entitled “*Potential Impacts of Alternative Transportation Corridors on Waters of the U.S. and Riparian Ecosystems for the Southern Orange County Transportation Infrastructure Improvement Project*” (Smith, 2003; “ERDC report”). This report is included as Appendix A of the Natural Environment Study (NES), which is part of the draft EIS/SEIR. The report includes a detailed discussion of the methods used to quantify impacts to WofUS, including wetlands, and to quantitatively assess the functional values of these aquatic resources. The following discussion is a summary of the information presented in the report.

The potential impact of each SOCTIIP alternative corridor alignment on WofUS and riparian ecosystems in terms of surface acreage, WofUS stream channel linear distance, and riparian ecosystem integrity was assessed by simulating changes that could be expected to occur in each riparian reach as a result of the direct impacts associated with each alternative corridor alignment. The assessment is summarized as follows:

1. A planning level delineation, adapting methods outlined in the Corps' Wetlands Delineation Manual (Environmental Laboratory, 1987) and 33 CFR Part 328, was prepared to identify locations, acreage, and linear distance of WofUS and associated riparian ecosystems. This approach, which is suitable for use in project planning, provides a high quality map, based on likelihood of occurrence, of jurisdictional wetlands and non-wetland WofUS.
2. A functional assessment was performed to quantify ecosystem integrity under current baseline conditions for the hydrology, water quality, and habitat integrity indices.
3. "Integrity units" were defined by multiplying riparian acreage by ecosystem integrity indices.
4. Potential direct impacts to WofUS and riparian areas for each alternative corridor alignment were assessed for the following four criteria:
  - Criteria 1: Quantity of non-wetland WofUS directly impacted, categorized by Strahler stream order (miles/kilometers).
  - Criteria 2: Riparian ecosystems directly impacted (acres/hectares).
  - Criteria 3: Quantity of Hydrologic, water quality, and habitat integrity units for riparian reaches directly impacted.
  - Criteria 4: Loss of hydrologic, water quality, and habitat integrity units for riparian reaches directly impacted.

For each criterion, a normalized score ranging from 0.0 to 1.0 was calculated by dividing the number of units (miles, acres, integrity units) impacted under a given alternative by the number of units from the alternative with the greatest impact units for the particular criterion.

5. The extent of potential direct impacts for each alternative corridor alignment was quantified and alternative corridor alignments ranked according to extent of impacts.

Tables 5 and 6 below present the overall normalized score for each alternative for all criteria analyzed in the functional assessment. The total normalized impact score for each corridor alternative is obtained by adding the normalized impact scores calculated for each of the four criteria, including sub-criteria. The total impact scores were then normalized, as shown in the last column. The closer an alternative score to 0.0, the less functional impact it has to WofUS and riparian ecosystems. A score closer to 1.0 represents greater functional impact to WofUS and riparian ecosystems. (It should be noted that the "normalized total impact score" values in the last column of the tables below differ from those presented in the final ERDC report because they reflect the normalized values of *fewer* alternatives than were originally analyzed. Subsequent to the preparation of the functional assessment, several alternatives were eliminated from detailed analysis in the draft EIS/SEIR. The screening process used to eliminate alternatives is documented in the Executive Summary and Section 2.5 of the draft EIS/SEIR).



**Table 5**  
**NORMALIZED IMPACT SCORES FOR ALL CRITERIA AND ALTERNATIVES**  
**(INITIAL ALIGNMENT)**

Alternative	Criteria								Total Impact Score	Normalized Total Impact Score
	1	2	3a	3b	3c	4a	4b	4c		
FEC-M Initial	0.9	0.9	0.6	0.5	0.6	0.6	0.7	0.5	5.3	0.7
FEC-W Initial	0.7	0.7	0.5	0.4	0.5	0.5	0.7	0.5	4.5	0.6
CC Initial	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	8.0	1.0
CC-ALPV Initial	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	7.1	0.9
A7C-ALPV Initial	0.4	0.4	0.4	0.4	0.4	0.2	0.1	0.1	2.4	0.3
A7C-FEC-M Initial	0.9	0.8	0.5	0.5	0.5	0.6	0.7	0.5	5.0	0.6
AIO	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1	1.5	0.2
I-5	0.3	0.3	0.1	0.1	0.1	0.0	0.0	0.1	1.0	0.1

Source: Smith (2003) and P&D (2004).

**Table 6**  
**NORMALIZED IMPACT SCORES FOR ALL CRITERIA AND ALTERNATIVES**  
**(ULTIMATE ALIGNMENT)**

Alternative	Criteria								Total Impact Score	Normalized Total Impact Score
	1	2	3a	3b	3c	4a	4b	4c		
FEC-M Ultimate	0.9	0.9	0.6	0.5	0.6	0.6	0.7	0.5	5.3	0.7
FEC-W Ultimate	0.7	0.7	0.4	0.4	0.5	0.5	0.7	0.5	4.3	0.5
CC Ultimate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	8.0	1.0
CC-ALPV Ultimate	0.8	1.0	1.0	1.0	1.0	0.9	1.0	1.0	7.7	0.96
A7C-ALPV Ultimate	0.5	0.5	0.5	0.5	0.4	0.3	0.1	0.1	2.9	0.4
A7C-FEC-M Ultimate	0.8	0.8	0.5	0.5	0.5	0.6	0.7	0.5	4.9	0.6
AIO	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	1.4	0.2
I-5	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.9	0.1

Source: Smith (2003) and P&D (2004).

The I-5 and AIO alternatives received the lowest normalized overall score (meaning it is the alternative with the least functional impact to WofUS and riparian ecosystem areas). The A7C-ALPV alternative received the lowest score among the corridor alternatives. The FEC-M, FEC-W, and A7C-FEC-M alternatives received relatively moderate scores overall. The highest overall scores (reflecting the greatest functional impacts to WofUS and riparian ecosystem areas) were received by the CC and CC-ALPV alternatives.

### **Additional Project Information**

**NEPA-Section 404 of the CWA Integrated Process Memorandum Of Understanding**– The subject MOU applies to surface transportation projects in California in which an EIS project is likely to require an individual Department of Army permit, impact “special aquatic sites”, or impact greater than five acres of WofUS. The MOU was enacted in 1994 among seven federal and state agencies: FHWA, Federal Transit Administration (FTA), Corps, EPA, USFWS, U.S. National Marine Fisheries Service (NMFS), and Caltrans. The intended benefits of the NEPA-Section 404 integration process are: improved cooperation and efficiency of governmental operations at all levels, thereby better

serving the public; expedited construction of necessary transportation projects, with benefits to mobility and the economy at large; enabling more transportation projects to proceed on budget and on schedule; and protection and enhancement of the waters of the U.S., which will benefit the region's aquatic ecosystems and the public interest. For EIS projects likely to require an individual Department of Army permit, impact "special aquatic sites", or impact greater than five acres of WofUS, Caltrans is required to request the Corps, EPA, USFWS, and NMFS actively participate in the project development process. For the proposed activities outlined in this PN, the signatory agencies have been actively engaged in a collaborative process to fulfill the procedural and substantive requirements of the MOU. As part of the formal process, the Corps, EPA, USFWS, and NMFS (if marine and anadromous fish are involved) must provide written concurrence (or non-concurrence) on the NEPA purpose and need/404 basic and overall project purpose statements, criteria for alternative selection, project alternatives to be evaluated in the draft EIS, and the preliminary preferred alternative (if known). The Executive Summary in the draft EIS/SEIR contains a detailed discussion of the NEPA-Section 404 integration process, SOCTIIP Collaborative, and general public and agency coordination. Section 11.0, Comments and Coordination of the draft EIS/SEIR, also provides information on public and agency coordination.

**Basic and Overall Project Purpose-** In March 1999, pursuant to the NEPA/Section 404 of the CWA Integrated Process MOU, the SOCTIIP purpose and need statement was approved by the federal signatory agencies. The complete project purpose and need statement is provided in Section 1.0 (Purpose and Need for the Proposed Project) of the draft EIS/SEIR. The basic project purpose (for purpose of the Corps' CWA Section 404(b)(1) evaluation) is vehicular transportation. The overall project purpose (also, for the Corps' 404(b)(1) evaluation) is *to provide improvements to the transportation infrastructure system that would help alleviate future traffic congestion and accommodate the need for mobility, access, goods movement and future traffic demands on I-5 and the arterial network in the study area.* The objectives and goals of the SOCTIIP Project include the following: Improve the projected future Level of Service (LOS) and reduce the amount of congestion and delay on the freeway system and, as a secondary objective, the arterial network, in southern Orange County. The overall goal is to improve projected levels of congestion and delay as much as is feasible and cost effective. This may include strategies which lead to a reduction in the length of time LOS F will occur, even if the facility will still operate at LOS F for a short period of time, if the strategy will result in benefits to the traveling public and more efficient movement of goods because it reduces total delay.

**Description of Alternatives-** Although the general description for each of the alternatives is similar, they differ in their juxtaposition within the study area and in the location of their connection with I-5 (for those alternatives that connect to I-5). The AIO and A7-ALPV alternatives do not connect directly with the I-5; both terminate at intermediate points at intersecting arterials. The CC and CC-ALPV alternatives connect with the I-5 in the city of San Clemente, whereas the FEC-M, FEC-W, and A7C-FEC-M alternatives terminate at the I-5 further south, near Camp Pendleton. Figure 2 is provided to illustrate the location and general geographic relationship among the build alternatives.

**Toll Road Corridor Alternatives.** The applicant anticipates that if a toll road corridor alternative is selected as the preferred alternative, it would be constructed in phases as required to meet the projected travel demand. The applicant refers to these phases as the "Initial Project" and the "Ultimate Project". The applicant will apply for a 404 permit only for the Initial Project. While the Corps will consider

the cumulative impacts of the Ultimate Project, any DA permit issued pursuant to this Public Notice will only be for the Initial Project. The general sequence of construction, including the associated footprint of disturbance for the Initial and Ultimate alignments, are illustrated on Figures 3 and 4 and described as follows:

“Initial Project”: Oso Parkway to Ortega Highway

- Four general-purpose lanes, two in each direction, would be constructed, with sufficient width in the median to accommodate future HOV lanes, as shown in the typical cross sections on Figure 3.
- Barriers and shoulders would be constructed consistent with Caltrans standards.
- Interchanges at existing arterials and state highways and mainline and ramp toll facilities would be constructed.
- Bridges would be constructed to accommodate the four general-purpose travel lanes.
- Possible future interchanges proposed where the intersecting arterial is not yet constructed would not be constructed. Under all the corridor alternatives, this would be the interchange at Crown Valley Parkway.

“Initial Project”: Ortega Highway to I-5

- Four general-purpose lanes, two in each direction, would be constructed.
- Barriers and shoulders would be constructed consistent with Caltrans standards.
- Interchanges at existing arterials and state highways and mainline and ramp toll facilities would be constructed.
- Bridges would be constructed to accommodate the four general-purpose travel lanes.

“Ultimate Project”

- The applicant would evaluate the need in the future for the additional general-purpose lanes and the HOV lanes based on traffic demand and financial feasibility. When needed, additional pavement and bridge widenings to accommodate the additional lanes would be constructed as shown on Figure 4 outside the existing lanes (from I-5 to Ortega Highway) or within the median (from Ortega Highway to Oso Parkway). Major reconstruction of the interchanges to accommodate the additional general-purpose lanes would be required as additional lanes are added.
- Barriers and shoulders would be constructed consistent with Caltrans standards.
- Interchanges at existing arterials and state highways and mainline and ramp toll facilities would be constructed to accommodate the travel lanes.

- Bridges would be reconstructed to accommodate the additional travel lanes.

***Far East Corridor-West (FEC-W) Alternative.*** The extension of existing SR-241 south from Oso Parkway to I-5 at the County line; four mixed flow lanes for the Initial; eight lanes (six mixed flow and two HOV) for the Ultimate; approximately 16 mi long.

***Far East Corridor-Modified (FEC-M) Alternative.*** The extension of existing SR-241 south from Oso Parkway to I-5 at the County line; four mixed flow lanes for the Initial; eight lanes (six mixed flow and two HOV) for the Ultimate; approximately 16 mi long.

***Central Corridor-Complete (CC, formerly referred to as the BX Alignment) Alternative.*** The extension of existing SR-241 south from Oso Parkway to I-5 at Avenida Pico in San Clemente; four mixed flow lanes for the Initial; eight lanes (six mixed flow and two HOV) for the Ultimate; approximately 12 mi long.

***Central Corridor-Avenida La Pata Variation (CC-ALPV) Alternative.*** The extension of existing SR-241 south from Oso Parkway to Avenida La Pata in San Clemente; four mixed flow lanes for the Initial; eight lanes (six mixed flow and two HOV) for the Ultimate; approximately 8.7 mi long.

***Alignment 7 Corridor-Far East Crossover-Modified (A7C-FEC-M) Alternative.*** The extension of existing SR-241 south from Oso Parkway to I-5 at the County line; four mixed flow lanes for the Initial; eight lanes (six mixed flow and two HOV) for the Ultimate; approximately 16 mi long.

***Alignment 7 Corridor-Avenida La Pata Variation (A7C-ALPV) Alternative.*** The extension of existing SR-241 south from Oso Parkway to Avenida La Pata I-5 at the County line; four mixed flow lanes for the Initial; eight lanes (six mixed flow and two HOV) for the Ultimate; 9 mi long.

**Arterial Improvements Only (AIO) Alternative.** The expansion of Antonio Parkway/Avenida La Pata between Oso Parkway and just south of Camino Las Ramblas, with the addition of one lane in each direction, beyond the Master Plan of Arterial Highways (MPAH) designations for this road segment. The improved segment between San Juan Creek Road and Avenida Pico would have a total of six travel lanes, and the improved segment from Oso Parkway to San Juan Creek Road would have a total of eight travel lanes. Transportation Systems Management (TSM) improvements would be constructed in the existing rights-of-way on Avenida Pico, Camino Las Ramblas, on Ortega Highway between Antonio/La Pata and I-5, and on Avenida La Pata between Avenida Pico and south of Camino Las Ramblas, under the AIO Alternative.

**High Occupancy Vehicle (HOV) and Mixed Flow Lanes on I-5 (I-5) Alternative.** The addition of one HOV lane in each direction and one or two mixed flow lanes in each direction on I-5 from south of Las Flores to south of Cristianitos Road, and auxiliary lanes in some locations on this segment of I-5.

**No Action Alternatives.** Based on consideration of the No Action/No Project Alternative requirements under NEPA and CEQA, as well as demographic and land use factors described in Section 2.0 (Alternatives) of the draft EIS/SEIR, two No Action Alternatives were defined for co-equal evaluation. These two No Action Alternatives vary in the number of dwelling units (dus) assumed on the Rancho Mission Viejo (RMV) property and in the onsite circulation improvements assumed to support the

development on RMV. The first No Action/No Project scenario assumes 14,000 dus, as publicized in RMV's current development plans, while the other No Action/No Project scenario evaluates 21,000 dus, consistent with the OCP-2000 projections.

**Regional Transportation Plan.** A SOCTIIP corridor build alternative would be consistent with local and regional transportation planning, as briefly summarized below:

- **Orange County Master Plan of Arterial Highways.** A SOCTIIP corridor has been identified in the Master Plan of Arterial Highways (MPAH) since 1981. The MPAH defines the countywide circulation system to serve existing and adopted future land uses, and ensures coordinated transportation system development among local jurisdictions.
- **Regional Transportation Plan (RTP) – SCAG and SANDAG.** A SOCTIIP corridor has been included in both these RTPs for several years. An RTP is developed in accordance with established federal requirements and policies. The RTP is the basic policy and program framework for long-term investment in the transportation system. The RTP process seeks to maximize mobility and accessibility, ensure safety and reliability and improve the balance between region-wide land uses and the current and future transportation system.

If necessary, the local and regional transportation plans would be updated to reflect the selected alternative.

**Other Resource Impacts and Project Costs** The following table summarizes impacts of the SOCTIIP build alternatives on other important environmental resource categories, project costs, and traffic benefits (i.e., system-wide travel savings).

**Table 7**

Alternative	Direct Impacts to Coastal Sage Scrub habitat (acres)	Recreational Resources Impacted [Including 4(f)] (1)	System Wide Travel Savings (2)	Cultural& Historic Resources (3)	Residential/ Business Displacement	Project Cost (in millions)
FEC-M Initial	426	3 existing; 1 proposed	20	20	0/0	\$763
FEC-M Ultimate	444	3 existing; 1 proposed	20	20	0/0	\$912
FEC-W Initial	410	3 existing; 1 proposed	20	21	0/0	\$706
FEC-W Ultimate	423	3 existing; 1 proposed	20	21	0/0	\$870
CC Initial	193	5 existing; 2 proposed	18	27	593/106	\$1,124
CC Ultimate	202	5 existing; 2 proposed	18	27	602/106	\$1,382
CC-ALPV Initial	177	1 existing; 2 proposed	8	15	2/0	\$513

Alternative	Direct Impacts to Coastal Sage Scrub habitat (acres)	Recreational Resources Impacted [Including 4(f)] (1)	System Wide Travel Savings (2)	Cultural & Historic Resources (3)	Residential/ Business Displacement	Project Cost (in millions)
CC-ALPV Ultimate	188	1 existing; 2 proposed	8	15	14/0	\$628
A7C-ALPV Initial	190	1 existing; 2 proposed	8	13	80/0	\$963
A7C-ALPV Ultimate	217	1 existing; 2 proposed	8	14	92/0	\$1,020
A7C-FEC-M Initial	380	3 existing; 2 proposed	21	19	0/0	\$715
A7C-FEC-M Ultimate	391	3 existing; 2 proposed	21	19	0/0	\$873
AIO	74	3 existing; 3 proposed	5	13	263/17	\$543
I-5	21	12 existing; 1 proposed	20	30	838/382	\$2,424

(1) Number of 4(f) resources affected by permanent acquisition of property. 4(f) resources are defined by the Department of Transportation as publicly owned land of a public park, recreation areas, or wildlife and waterfowl refuge, or land of an historic site of national, State, or local significance, regardless of ownership.

(2) Total hours of vehicle travel time savings per day, expressed in thousands.

(3) Numbers reflect the total recorded archeological and historic resources potentially impacted.

Additional information concerning the impacts of the proposed project is in the draft EIS/SEIR, which is available on the Internet at [www.thetollroads.com](http://www.thetollroads.com). Table ES.6-1 in the Executive Summary of the draft EIS/SEIR provides a comparison of the impacts that would result from each of the alternatives.

**Related Regional Conservation Planning Efforts-** South Orange County is one of the last substantial remaining unplanned areas in the county, as urbanization has progressed inland and east from the coast. In contrast with other parts of the county, where land use decisions have been made regarding the locations of development and open space, south Orange County is in the midst of a decision-making process that is anticipated to result in the designation of areas for development and open space for the remaining undeveloped and unplanned areas in this part of the county. Three other major projects are planned within the SOCTIIP study area, including the County's General Plan Amendment/Zone Change, the Southern Sub-region Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP), and the Special Area Management Plan (SAMP)/Master Streambed Alteration Agreement (MSAA), all of which are being planned simultaneously and in a coordinated effort. The purpose of the NCCP/HCP is to protect and conserve target species and their associated habitats to maintain or improve the ecosystem processes. Although there are many federal and state agencies involved in the NCCP/HCP process, the USFWS is the lead federal agency, while the County of Orange is the lead local agency. Both the USFWS and the County of Orange eventually will approve a joint EIS/EIR being prepared as part of the environmental evaluation process for the NCCP/HCP. The Southern Sub-region NCCP/HCP area has been the subject of ongoing study for nearly a decade, and the studies of 10 candidate plans are now underway, including a Habitat Reserve System and an Adaptive Management Program. Additional information pertaining to these planning

efforts may be accessed at <http://pdsd.oc.ca.gov/soccpp/>.

The San Juan Creek and San Mateo Creek Watersheds SAMP process is being carried out jointly as a SAMP/MSAA, with the Corps and California Department of Fish and Game (CDFG) as the lead agencies under NEPA and CEQA, respectively. The purpose of the SAMP is to develop and implement a watershed-wide aquatic resource management plan and implementation program, which could include preservation, enhancement, and restoration of aquatic resources, while allowing reasonable and responsible economic development within the study area. The SAMP is being closely coordinated with RMV, the County of Orange, Regional Water Quality Control Board, USFWS, and EPA. A draft joint EIS/EIR for the proposed SAMP/MSAA will eventually be circulated for public review and comment. The process is anticipated to result a streamlined Section 404 permitting process, including an Aquatic Resources Conservation Program, among other documents and products. Additional information pertaining to the SAMP/MSAA planning efforts may be accessed at <http://www.spl.usace.army.mil/regulatory>.

**Proposed Mitigation** No specific compensatory mitigation sites are proposed by the applicant at this time. However, the applicant intends to provide compensatory mitigation to offset the unavoidable impacts of the proposed project on WofUS, including wetlands, with the goal of no net loss of wetlands functional values (e.g., habitat, hydrology, and water quality integrity). A general approach with performance standards has been established (see Section 10.0 of the NES Technical Report), with additional implementation level details of the compensatory mitigation strategy to be developed once a preferred alternative has been selected. Mitigation will be applied to both temporarily and permanently impacted WofUS.

An important consideration in the development, implementation, and long-range success of the aquatic resources mitigation is appropriate site selection to ensure that created, restored, and/or enhanced wetlands and riparian ecosystems are self-sustaining and capable of functioning in perpetuity. To accomplish this, performance standards, site maintenance, and monitoring criteria must be established and properly implemented. In general, the mitigation sites shall possess or have the potential for appropriate habitat connectivity, maintain sufficient hydrology, and exhibit suitable soils that will adequately support wetland species. A complete listing of mitigation measures for impacts to all environmental topics is provided in Sections 7.0 and 8.0 of the draft EIS/SEIR.

### **Proposed Special Conditions**

No special conditions are proposed at this time.

### **Subsequent Public Notice**

The aforementioned MOU (re: NEPA-Section 404 of the CWA) sets forth procedures for an integrated process to ensure that both the procedural aspects of the NEPA are met and the substantive requirements of the CWA are fulfilled. Accordingly, the MOU provides for multiple checkpoints during the environmental evaluation process to obtain concurrence from the Corps, EPA, and the USFWS (and NOAA Fisheries if anadromous fish are affected) as a prerequisite for moving forward to the next step. Since the FHWA and the applicant have not identified a preferred alternative, this PN summarizes the range of alternatives that are being considered in the draft EIS/SEIR. This PN will be followed by a second PN subsequent to the final EIS/SEIR circulation. The subsequent PN will solicit

public comments on the preferred alternative/preliminary Least Environmentally Damaging Practicable Alternative (LEDPA) that is selected through the NEPA-404 MOU process and in accordance with 40 CFR 1502.14(e). Public comments received on the subsequent PN will be used by the Corps to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

For additional information please call Susan A. DeSaddi of my staff at (213) 452-3412. This public notice is issued by the Chief, Regulatory Branch.

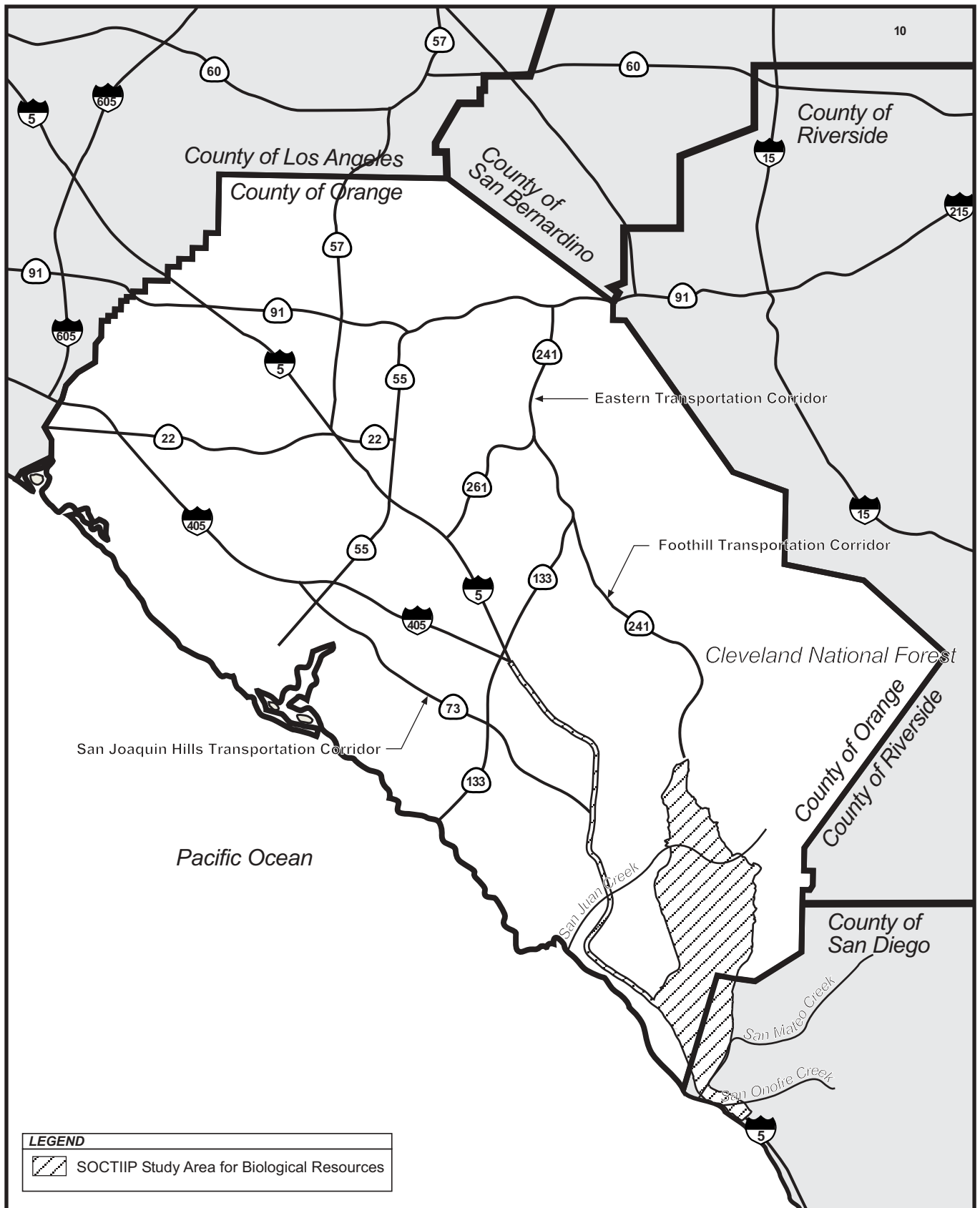
### **Citations**

Environmental Laboratory. 1987. "Corps of Engineers wetlands delineation manual," Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Smith, R. D. 2003. Potential Impacts of Alternative Transportation Corridors on Waters of the United States and Riparian Ecosystems for the Southern Orange County Transportation Infrastructure Improvement Project. U.S. Army Engineer Research and Development Center, Waterways Experiment Station, Vicksburg, MS.

Strahler. 1957. Quantitative analysis of watershed geomorphology. Transactions of the American Geophysical Union 38: 913-920.



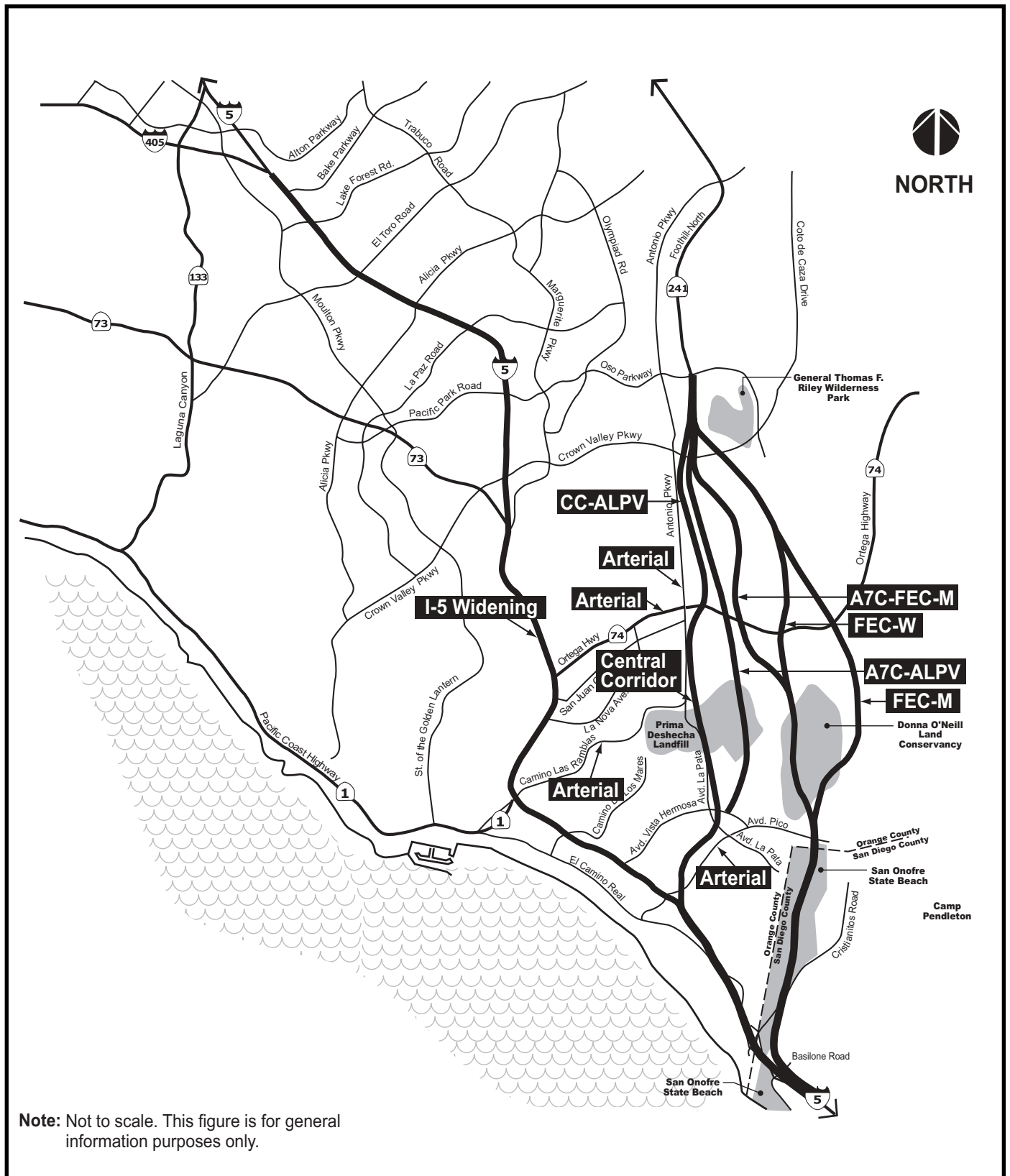


Source: P&D Consultants (2004).



## Study Area for Biological Resources

Figure 1



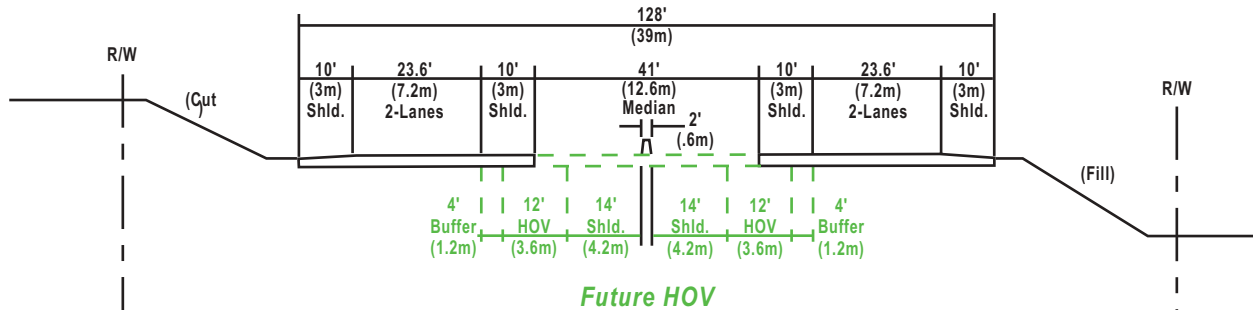
Source: P&D Consultants (2004)

## SOCTIIP Alternatives

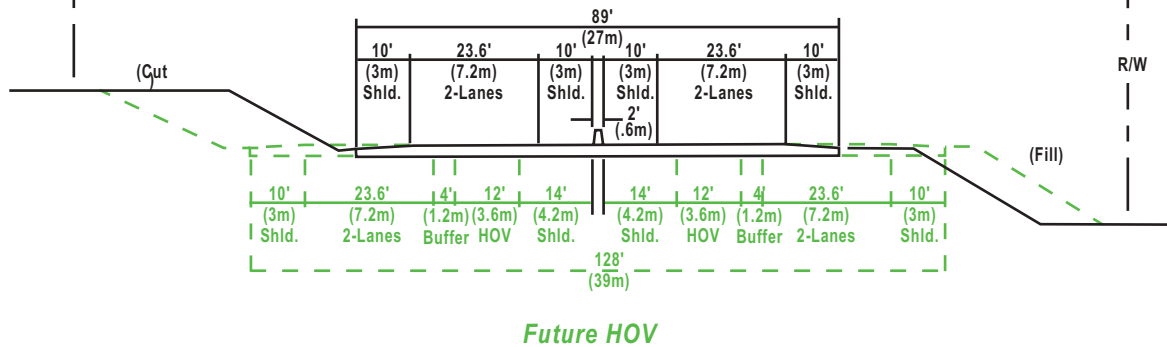
Figure 2



### Initial Corridor (Oso Parkway to Ortega Highway)



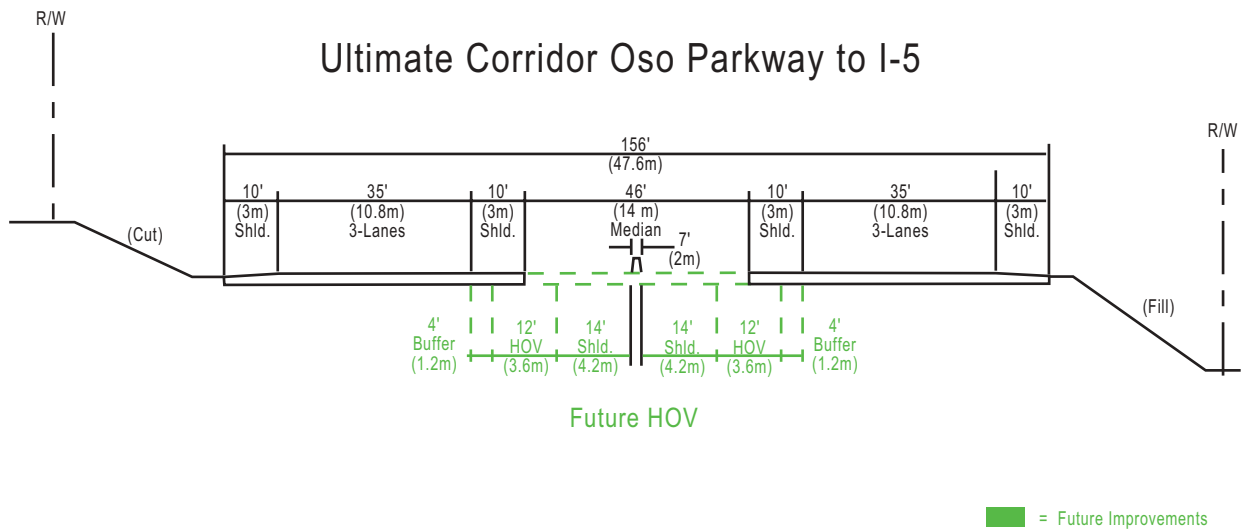
### Initial Corridor (Ortega Highway to I-5)



Source: P&D Consultants (2004).

Typical Corridor Cross Sections

Figure 3



Source: P&D Consultants (2004).

Typical Corridor Cross Sections

Figure 4